

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of:	Douglas Heintzman, <i>et al.</i>	Group Art Unit:	2629
Serial No.:	10/734,772	Examiner:	Tran, Henry N.
Filed:	December 12, 2003	Conf. No.:	1755
For:	Modifying Visual Presentations Based on Environmental Context and User Preferences	Atty. Dkt.:	2300.000300
		Client Docket:	AUS920030916US1
		Customer NO.:	46240

APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENT
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby submit this Appeal Brief to the Board of Patent Appeals and Interferences in response to the final Office Action dated September 4, 2007. The fee for filing this Appeal Brief is \$510.00, and the Commissioner is authorized to deduct said fees from IBM Deposit Account No. 09-0447/AUS920030916US1.

I. REAL PARTY IN INTEREST

International Business Machines Corporation, the assignee hereof, is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences of which Applicants, Applicants' legal representative, or the Assignees are aware that will directly affect or be directly affected by or have a bearing on the decision in this appeal.

III. STATUS OF THE CLAIMS

Claims 1-29 are pending in the case, each of which was rejected as follows:

- claims 1-5, 7, 9-21, and 24-29 as anticipated under 35 U.S.C. §102(e) by U.S. Letters Patent 6,870,529 (“Davis”); and
- claims 6, 8, and 22-23 as obvious under 35 U.S.C. §103(a) over Davis in view of U.S. Letters Patent 6,618,045 (“Lin”).

Applicants appeal each of the rejections. For the convenience of the Office, Applicants identify the claims in this appeal as claims 1-29.

IV. STATUS OF AMENDMENTS

No amendment was filed after the “final” Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This invention relates generally to visual presentation systems, and, more particularly, to modifying visual presentations based on environmental context and user preferences. ¶[0002] **FIG. 1**, reproduced below, shows a system 100 including various devices 110(1-4) for displaying visual information. ¶[0019] Each of the devices 110(1-4) includes a display device 115(1-4) that is capable of displaying information visually. For example, the display devices 115(1-4) may be flat panel LED displays, CRTs, and the like. ¶[0020]

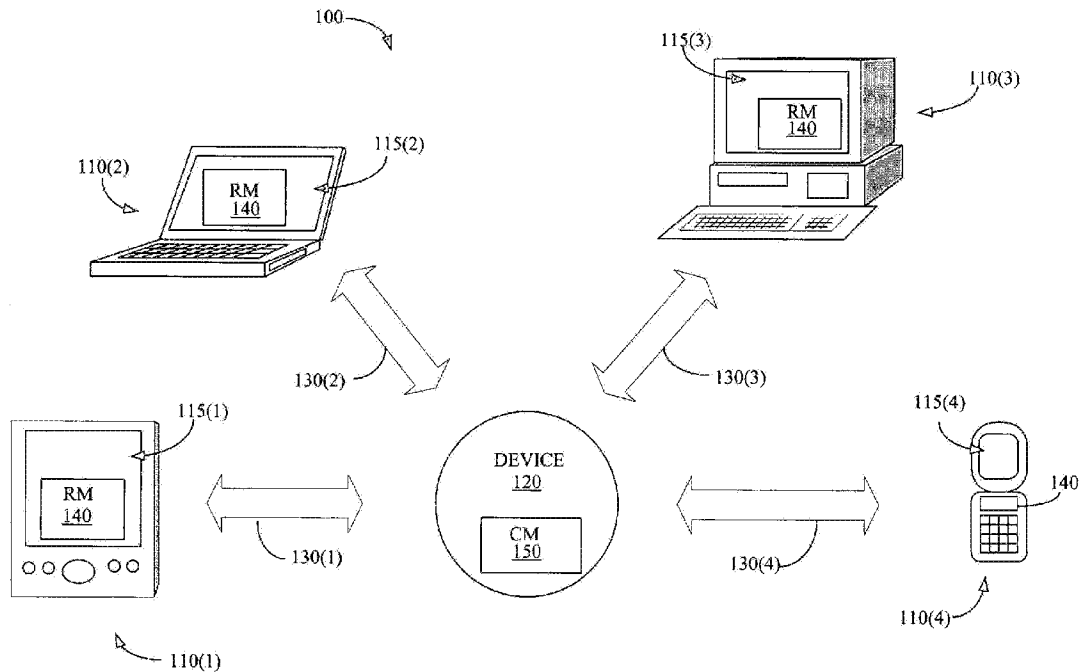


Figure 1

The devices 110(1-4) are communicatively coupled to a processor-based device 120 by respective links 130(1-4). ¶[0022] The processor-based device 120 is capable of providing information to the devices 110(1-4). ¶[0023] In the illustrated embodiment, the processor-based device 120 is a network server that is capable of receiving requests from, and transmitting information to, the devices 110(1-4). ¶[0023] The devices 110(1-4) include a remote module 140, which may receive data indicative of light conditions proximate to the devices 110(1-4), respectively. ¶[0024] The remote module 140 may also receive data associated with at least one visibility profile containing information indicative of the capabilities and characteristics of the devices 110(1-4), 115(1-4), as well as the preferences and/or capabilities of the user. ¶[0024] In one embodiment, the visibility profile may include a user profile and a device profile, which may be stored in different locations. ¶[0024]

The processor-based device 120 includes a controller module 150, which may receive data indicative of light conditions proximate to the devices 110(1-4), respectively. ¶[0025] The controller module 150 may also receive data associated with at least one visibility profile and determine a format for information to be displayed by the device 110(1-4) on, for example, the display devices 115(1-4), respectively, based on at least a portion of the received data and the received visibility profile. ¶[0025]

FIG. 2, also reproduced below, conceptually illustrates one embodiment of a system 200 including a display device 205, such as the display devices 115(1-4) that may be used in the devices 110(1-4) shown in **FIG. 1**. ¶[0026] The system 200 includes a detector 210 that is capable of acquiring data indicative of light conditions proximate to the display device 205. ¶[0027] For example, the detector 210 may be capable of measuring the intensity of ambient light from the sun 215 and/or an artificial light source 220. ¶[0027] The detector 210 may also be capable of acquiring data indicative of other light conditions proximate to the display device 205 including, but not limited to, spectral and/or color information, angles of incidence and/or reflection, variability, and the like. ¶[0027] The detector 210 provides the acquired data indicative of the light conditions proximate to the display device 205 to the processor-based device 120. ¶[0027]

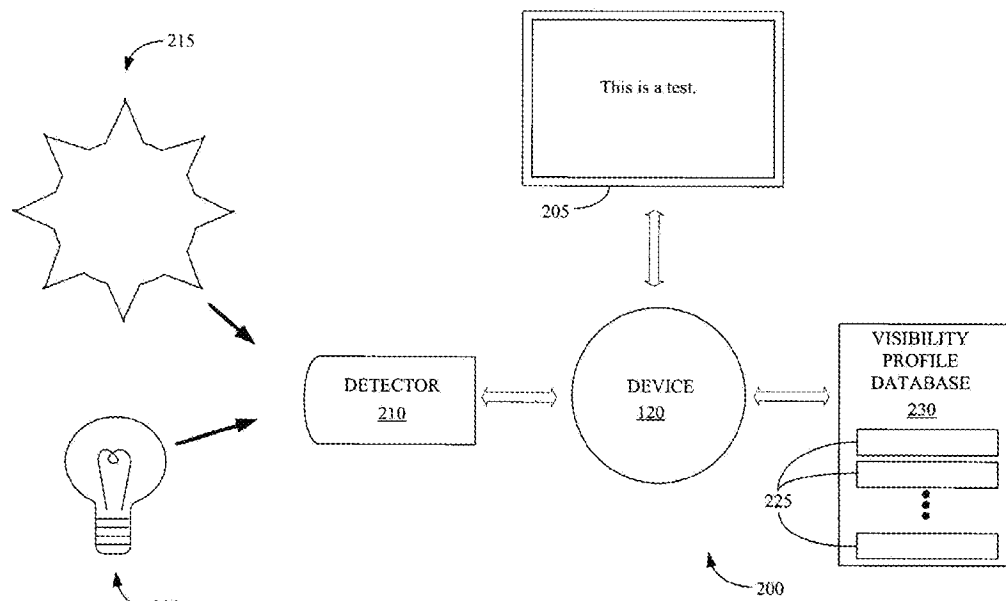


Figure 2

The system 200 may have a plurality of users. ¶[0028] The plurality of users may each have an associated visibility profile 225 stored in a database 230, portions of which may be located at any desired location, including on the processor-based device 120 or another device. ¶[0028] The processor-based device 120 may access the one or more visibility profiles 225 that contain information that can be used by the processor-based device 120 to provide information to the display device 205 in a manner desired by the user. ¶[0028]

In one embodiment, the visibility profiles 225 include information about the capabilities of the particular device being used by the user. In addition, the visibility profiles 225 may indicate the preferred mode of operation of the display device 205. ¶[0029] The visibility profiles 225 may also include information specific to one or more users, such as the user's preferences. ¶[0030] The visibility profiles 225 may also include information about the user's capabilities, such as limitations on the user's visual capabilities. ¶[0031] Although the embodiment of the visibility profile 225 shown in **FIG. 2** includes information associated with both the user and the display device 205, the present invention is not so limited. ¶[0032]

As the conditions proximate to the display device 205 change, the visual information displayed may become easier or more difficult to see. ¶[0033] For example, if a user is reading a document on a personal data assistant while walking from a dark room to a lighted room, the ambient light in the lighted room may obscure the visual information displayed on the display device 205 of the personal data assistant. ¶[0033] Alternatively, the user of the display device 205 may change, making the current visual presentation preferences undesirable. ¶[0033] For example, a first user may log off a desktop computer, which may be displaying information using the first user's preferences, *e.g.*, a low contrast color display, as indicated in a visibility profile 225. ¶[0033] A second user requiring or preferring a high contrast black-and-white display may then log on to the desktop computer. ¶[0033]

Turning to **FIGS. 3A** and **3B**, also reproduced below, the processor-based device 120 receives the data acquired by the detector 210 and the visibility profiles 225, shown in **FIG. 2**. ¶[0034] Based on the received data, it determines a format for information to be displayed by the visual presentation device 205. ¶[0034]

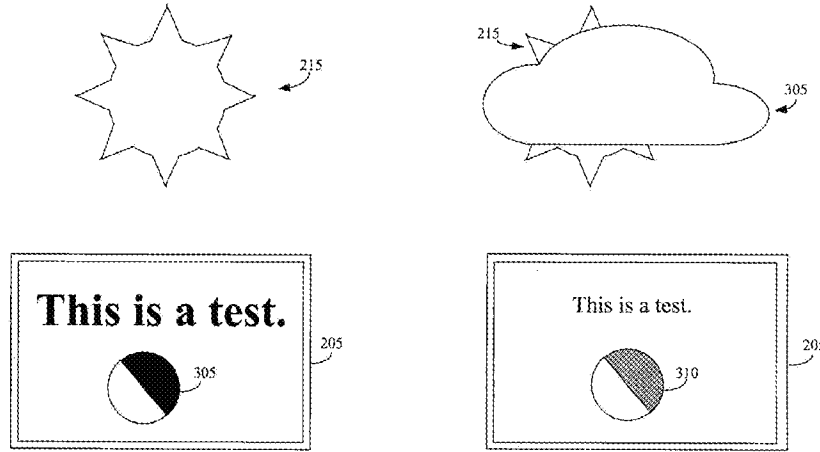


Figure 3A

Figure 3B

For example, a visibility profile 225 may indicate that a user prefers larger fonts and higher contrast in bright light. ¶[0034] Thus, the processor-based device 120 may use the data stored in the visibility profile 225 and the data provided by the detector 210 to determine a format that may be used to present information in larger fonts (*i.e.*, the phrase, "This is a test.") and at higher contrast (as indicated by the split circle 305) when bright light from the sun 215, and the resulting glare, make it difficult for the user to see visual information, as shown in **FIG. 3A**. ¶[0034] When the ambient light intensity is lower, such as when a cloud 305 passes over the sun 215, the processor-based device 120 may use the accessed visibility profile 225 and the data acquired by the detector 210 to determine a format to present information in smaller fonts (*i.e.*, the phrase, "This is a test.") and at lower contrast (as indicated by the split circle 310), as shown in **FIG. 3B**. ¶[0034]

A plurality of users may have access to the same display device 205. ¶[0035] A first visibility profile 225 may indicate that a first user prefers a format that allows the display device 205 to present information in smaller fonts (*i.e.* the phrase, "This is a test.", shown in **FIG. 3B**) and at lower contrast (as indicated by the split circle 310). ¶[0035] However, a second visibility profile 225 may indicate that a second user prefers larger fonts and higher contrast. ¶[0035] Thus, when a second user is detected using the display device 205 (*e.g.*, the second user has logged in), the processor-based device 120 receives the data acquired by the detector 210 and the visibility profiles 225, and, based on the received data, determines a format for information to be displayed by the visual presentation device 205. ¶[0035] For example, the processor-based

device 120 may use the data stored in the visibility profile 225 and the data provided by the detector 210 to modify the format so that it may be used to present information in a manner desired by the second user, *i.e.* in larger fonts (*i.e.* the phrase, "This is a test.") and at higher contrast (as indicated by the split circle 305), as shown in **FIG. 3A**. ¶[0035]

Now, turning to the language of the claims themselves, **claims 1, 11, 19-20 and 25 are independent claims**. With respect to **claim 1**, a method, the invention comprises:

- receiving (*e.g.*, at 410, **FIG. 4**; ¶[0037]) data indicative of light conditions (*e.g.*, **FIG. 2**; ¶[0027], ¶[0033]) proximate to a visual presentation device (*e.g.*, 115(1)-(4), **FIG. 1**; ¶[0019]-¶[0021]);
- authenticating (*e.g.*, at 425, **FIG. 4**; ¶[0038]) a user identification (*e.g.*, ¶[0038]);
- receiving (*e.g.*, at 420, **FIG. 4**; ¶[0038]) data associated with at least one visibility profile (*e.g.*, 225, **FIG. 2**; ¶[0028]-¶[0032]) associated with the authenticated user identification; and
- determining (*e.g.*, at 430, **FIG. 4**) visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of the light conditions and at least a portion of the received data associated with the at least one visibility profile.

With respect to **claim 11**, an apparatus, the invention comprises:

- an interface (*e.g.*, 560, **FIG. 5**; ¶[0045]); and
- a control unit (*e.g.*, 510, **FIG. 5**; ¶[0043], ¶[0045]) communicatively coupled to the interface and adapted to:
 - receive (*e.g.*, at 410, **FIG. 4**) data indicative of light conditions (*e.g.*, **FIG. 2**; ¶[0027], ¶[0033]) proximate to a visual presentation device (*e.g.*, 115(1)-(4), **FIG. 1**; ¶[0019]-¶[0021]);
 - authenticating (*e.g.*, at 425, **FIG. 4**; ¶[0038]) a user identification (*e.g.*, ¶[0038]);
 - receive (*e.g.*, at 420, **FIG. 4**; ¶[0038]) data associated with at least one visibility profile (*e.g.*, 225, **FIG. 2**; ¶[0028]-¶[0032]) associated with the authenticated user identification; and
 - determine (*e.g.*, at 430, **FIG. 4**) visual data to be displayed by the visual presentation device based on at least a portion of the

received data indicative of light conditions and at least a portion of the received data associated with the at least one visibility profile.

With respect to **claim 19**, an apparatus, the invention comprises:

- means for receiving (*e.g.*, at 410, **FIG. 4**; ¶[0037]) data indicative of light conditions (*e.g.*, **FIG. 2**; ¶[0027], ¶[0033]) proximate to a visual presentation device (*e.g.*, 115(1)-(4), **FIG. 1**; ¶[0019]-¶[0021]);
- means for authenticating (*e.g.*, at 425, **FIG. 4**; ¶[0038]) a user identification (*e.g.*, ¶[0038]);
- means for receiving (*e.g.*, at 420, **FIG. 4**; ¶[0038]) data associated with at least one visibility profile (*e.g.*, 225, **FIG. 2**; ¶[0028]-¶[0032]) associated with the authenticated user identification; and
- means for determining (*e.g.*, at 430, **FIG. 4**) visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the data associated with the at least one visibility profile.

With respect to **claim 20**, a system, the invention comprises:

- at least one visual presentation device visual presentation device (*e.g.*, 115(1)-(4), **FIG. 1**; ¶[0019]-¶[0021]) adapted to display visual data;
- at least one storage device (*e.g.*, 230, **FIG. 2**; 520, **FIG. 5**; ¶[0028], ¶[0043]) adapted to store at least one visibility profile (*e.g.*, 225, **FIG. 2**; ¶[0028]-¶[0032]);
- at least one detector (*e.g.*, 210, **FIG. 2**; ¶[0027]) for acquiring data indicative of light conditions (*e.g.*, **FIG. 2**; ¶[0027], ¶[0033]) proximate to the at least one visual presentation device; and
- a processor-based device (*e.g.*, 120, **FIG. 1**; ¶[0022]-¶[0023], ¶[0025]) adapted to:
 - receive (*e.g.*, at 410, **FIG. 4**; ¶[0037]) the data indicative of light conditions (*e.g.*, **FIG. 2**; ¶[0027], ¶[0033]) proximate to the visual presentation device;
 - authenticate a user identification (*e.g.*, ¶[0038]);

- receive (*e.g.*, at 420, **FIG. 4**; ¶[0038]) data associated with at least one visibility profile (*e.g.*, 225, **FIG. 2**; ¶[0028]-¶[0032]) associated with the authenticated user identification; and
- determine the visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the received data associated with the at least one visibility profile.

With respect to **claim 25**, a computer program product in a computer readable medium which when executed by a processor performs the steps, the invention comprises:

- receiving (*e.g.*, at 410, **FIG. 4**; ¶[0037]) the data indicative of light conditions (*e.g.*, **FIG. 2**; ¶[0027], ¶[0033]) proximate to the visual presentation device;
- authenticating (*e.g.*, at 425, **FIG. 4**; ¶[0038]) a user identification (*e.g.*, ¶[0038])
- receiving (*e.g.*, at 420, **FIG. 4**; ¶[0038]) data associated with at least one visibility profile (*e.g.*, 225, **FIG. 2**; ¶[0028]-¶[0032]) associated with the authenticated user identification; and
- determining (*e.g.*, at 430, **FIG. 4**) visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the received data associated with the at least one visibility profile.

The references in parentheses are not limitations in the claims but relate the claim language to Applicant's disclosure in compliance with the Rules of Practice.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 1-5, 7, 9-21, and 24-29 are anticipated under 35 U.S.C. §102(e) by U.S. Letters Patent 6,870,529 ("Davis").

B. Whether claims 6, 8, and 22-23 are obvious under 35 U.S.C. §103(a) over Davis in view of U.S. Letters Patent 6,618,045 ("Lin").

VII. ARGUMENT

Applicants appeal from the each of the rejections of the claims. More particularly, Applicants appeal the following rejections:

- claims 1-5, 7, 9-21, and 24-29 as anticipated under 35 U.S.C. §102(e) by U.S. Letters Patent 6,870,529 (“Davis”); and
- claims 6, 8, and 22-23 as obvious under 35 U.S.C. §103(a) over Davis in view of U.S. Letters Patent 6,618,045 (“Lin”).

Each of these rejections will be addressed in turn.

A. Claims 1-5, 7, 9-21, and 24-29 are Novel Over Davis

The Office rejected claims 1-5, 7, 9-21, and 24-29 as anticipated under 35 U.S.C. §102(e) by U.S. Letters Patent 6,870,529 (“Davis”). An anticipating reference, by definition, must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. M.P.E.P. § 2131; *In re Bond*, 15 U.S.P.Q.2d (BNA) 1566, 1567 (Fed. Cir. 1990). Applicants respectfully submit that Davis fails to meet this standard as to the amended claims.

In the previous round of examination, each of the independent claims 1, 11, 19-20, and 25 was amended to recite a user authentication prior to retrieval of a user profile associated with the authenticated user identification. Each of the dependent claims 2, 12, 16-18, 21-23, and 26 incorporates this limitation by virtue of their dependence. 35 U.S.C. §112, ¶4. Davis fails to disclose this limitation.

The Office cites two portions of Davis for teaching this limitation. A close examination, however, reveals that they teach only user identification, not authentication. The first citation is to col. 3, lines 4-5, which read:

As other users log onto the computer, ambient light levels and corresponding brightness levels are stored in association with the user identifier for the current user.

Note that there is no discussion of authentication, only “logging in” and “user identification.” The second citation is to col. 4, lines 50-52, which read:

Brightness control monitor 60 obtains a user identifier for a user currently utilizing computer 10 from CPU 50 or one of the I/O devices on bus 54.

Note, again, that there is no discussion of authentication, only “user identification.”

Thus, the Office has failed to adduce an express teaching of “authentication”. The *prima facie* anticipation case fails unless the cited teachings inherently disclose “authentication”. Inherency in anticipation requires that the asserted proposition *necessarily* flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. (BNA) 323, 326 (C.C.P.A. 1981). It is not enough that a reference could have, should have, or would have been used as the claimed invention. “The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *Oelrich*, at 326, quoting *Hansgirk v. Kemmer*, 40 U.S.P.Q. (BNA) 665, 667 (C.C.P.A. 1939).

The excerpts cited by the Office mention, in relevant part, “user login” and “user identification.” The notion of “login” only *requires* “identification”—it does not necessarily imply “authentication.” Many home computers, for instance, have several accounts on them, not all of which require authentication. The undersigned, for example, has one home computer with and Administrator’s account that is password protected. To log into this account requires not only “identification” (*i.e.*, selection of the “Administrator” account), but also authentication (*i.e.*, entry of a password). Another account, however, is general usage. It only requires identification (*i.e.*, anyone who is not the Administrator). There is no need for authentication of any kind.

Thus, “user login” does not necessarily require “authentication”, only “identification.” Davis furthermore confirms that “identification” does not require authentication by the exemplary list of “user identifiers” it gives in col. 2, at lines 62-64. Other passages in Davis discuss “user login” in the context of “identification” without any mention of “authentication.” *See* col. 3, lines 4-7.

It therefore follows that Davis does not inherently disclose “authentication” of any kind since it only discusses “login” and “identification”, neither of which necessarily implies authentication. As established above, Davis also does not expressly disclose “authentication”. The Office has therefore failed to establish that Davis anticipates any of claims 1-5, 7, 9-21, and 24-29. M.P.E.P. § 2131; *In re Bond*, 15 U.S.P.Q.2d (BNA) 1566, 1567 (Fed. Cir. 1990).

B. Claims 6, 8, and 22-23 are Unobvious Over Davis & Lin

The Office rejected claims 6, 8, and 22-23 as obvious under 35 U.S.C. §103(a) over U.S. Letters Patent 6,870,529 (“Davis”) in view of U.S. Letters Patent 6,618,045 (“Lin”). To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 706.02(j); *In re Royka*,

490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). Applicants respectfully submit that the art of record fails to meet this standard as to the amended claims.

Again, as was established above, each of the independent claims 1, 11, 19-20, and 25 has been amended to recite a user authentication prior to retrieval of a user profile associated with the authenticated user identification. Each of the dependent claims 6, 8, and 22-23 incorporates this limitation by virtue of their dependence. 35 U.S.C. §112, ¶4.

These rejections rely on Davis to teach the “authentication” recited in the claims and, as established above, Davis does not. The Office has conceded that Lin omits any such teaching by withdrawing the earlier anticipation rejections based on Lin in light of the amendment adding “authentication.” Applicants note that Davis does teach the use of unique user identifiers in col. 2, at lines 62-64, but that the authenticating nature of these identifiers is not employed. That is, these identifiers are only used for identification and not for authentication and, indeed, their use would obviate any need for authentication. Thus, Davis cannot legitimately be construed to teach “authenticating” an “user identification.” Accordingly, Applicants respectfully submit that the art of record fails to render obvious any of claims 3-10, 13-15, 24, and 27-29. M.P.E.P. § 706.02(j); *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).

VIII. CLAIMS APPENDIX

The claims that are the subject of the present appeal claims 1-20 are set forth in the attached “Claims Appendix”.

IX. EVIDENCE APPENDIX

There is no separate Evidence Appendix for this appeal.

X. RELATED PROCEEDINGS APPENDIX

There is no Related Proceedings Appendix for this appeal.

XI. CONCLUSION

Applicants respectfully submit that the application is in condition for allowance. Accordingly, Applicants request that the rejections be overturned and that the application be allowed to issue.

Respectfully submitted,

Date: December 4, 2007

WILLIAMS, MORGAN & AMERSON
10333 Richmond Dr., Suite 1100
Houston, Texas 77042
(713) 934-4053 ph

/Jeffrey A. Pyle/
Jeffrey A. Pyle
Reg. No. 34,904
Attorney for Applicants

APPENDIX
(Claims in Issue)

1. A method, comprising:
receiving data indicative of light conditions proximate to a visual presentation device;
authenticating a user identification;
receiving data associated with at least one visibility profile associated with the authenticated user identification; and
determining visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of the light conditions and at least a portion of the received data associated with the at least one visibility profile.
2. The method of claim 1, wherein receiving the data indicative of light conditions proximate to the visual presentation device comprises determining at least one of an ambient light intensity and an ambient light spectrum.
3. The method of claim 2, wherein receiving the at least one visibility profile comprises receiving an indication of at least one deficiency in vision of a user.
4. The method of claim 3, wherein determining visual data to be displayed by the visual presentation device comprises comparing the indication of the at least one vision deficiency and at least one of the ambient light intensity and the ambient light spectrum.
5. The method of claim 4, wherein determining the visual data comprises determining at least one of a desired background color, foreground color, brightness, contrast, size, and font.
6. The method of claim 1, further comprising requesting the information to be displayed on the visual presentation device from a remote server.
7. The method of claim 1, wherein receiving the visibility profile comprises receiving at least one of a user profile and a device profile, and receiving the visibility profile comprises receiving at least one of a Composite Capabilities/Preferences Profile and a Learner Profile.
8. The method of claim 1, wherein determining the visual data to be displayed by the visual presentation device comprises

determining the visual data using a processor-based device located remotely from the presentation device and
providing the visual data from the processor-based device to the visual presentation device.

9. The method of claim 8, wherein receiving the data associated with at least one visibility profile includes receiving data associated by at least one visibility profile identified by at least one of a user identification number, a name, a username, an alias, a federated identification, and a password to the remote server.

10. The method of claim 1, further comprising determining that a new user is using the visual presentation device and receiving the visibility profile in response to determining that the new user is using the visual presentation device.

11. An apparatus, comprising:

an interface; and

a control unit communicatively coupled to the interface and adapted to:

receive data indicative of light conditions proximate to a visual presentation device;

authenticating a user identification;

receive data associated with at least one visibility profile associated with the authenticated user identification; and

determine visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the received data associated with the at least one visibility profile.

12. The apparatus of claim 11, wherein the control unit is adapted to determine at least one of an ambient light intensity and an ambient light spectrum.

13. The apparatus of claim 12, wherein the control unit is adapted to receive an indication of at least one deficiency in vision of a user.

14. The apparatus of claim 13, wherein the control unit is adapted to compare the indication of at least one deficiency in the vision of the user and at least one of the ambient light intensity and the ambient light spectrum.
15. The apparatus of claim 14, wherein the control unit is adapted to determine at least one of a desired background color, foreground color, brightness, contrast, size, and font.
16. The apparatus of claim 11, further comprising at least one visual presentation device adapted to display the determined visual data.
17. The apparatus of claim 16, wherein the visual presentation device is at least one of a personal data assistant, a laptop computer, a desktop computer, a cellular telephone, a global positioning system, an automobile navigation system, a projection device, and a television.
18. The apparatus of claim 11, further comprising at least one detector for acquiring the data indicative of light conditions proximate to the at least one visual presentation device.
19. An apparatus, comprising:
 - means for receiving data indicative of light conditions proximate to a visual presentation device;
 - means for authenticating a user identification;
 - means for receiving data associated with at least one visibility profile associated with the authenticated user identification; and
 - means for determining visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the data associated with the at least one visibility profile.
20. A system, comprising:
 - at least one visual presentation device adapted to display visual data;
 - at least one storage device adapted to store at least one visibility profile;
 - at least one detector for acquiring data indicative of light conditions proximate to the at least one visual presentation device; and
 - a processor-based device adapted to:

receive the data indicative of light conditions proximate to the visual presentation device;

authenticate a user identification;

receive data associated with at least one visibility profile associated with the authenticated user identification; and

determine the visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the received data associated with the at least one visibility profile.

21. The system of claim 20, wherein the visual presentation device is at least one of a personal data assistant, a laptop computer, a desktop computer, a cellular telephone, a global positioning system, an automobile navigation system, a projection device, and a television.

22. The system of claim 20, further comprising a plurality of visual presentation devices.

23. The system of claim 20, further comprising a plurality of detectors deployed proximate to the plurality of visual presentation devices.

24. The system of claim 20, wherein the at least one storage device is adapted to store at least one user profile database containing the at least one user profile, and wherein the visibility profile comprises at least one of a user profile and a device profile.

25. A computer program product in a computer readable medium which when executed by a processor performs the steps comprising:

receiving the data indicative of light conditions proximate to the visual presentation device;

authenticating a user identification

receiving data associated with at least one visibility profile associated with the authenticated user identification; and

determining visual data to be displayed by the visual presentation device based on at least a portion of the received data indicative of light conditions and at least a portion of the received data associated with the at least one visibility profile.

26. The product of claim 25, wherein the computer program product when executed by the processor performs the steps comprising determining at least one of an ambient light intensity and an ambient light spectrum.

27. The product of claim 25, wherein the computer program product when executed by the processor performs the steps comprising receiving an indication of at least one deficiency in a user's vision.

28. The product of claim 25, wherein the computer program product when executed by the processor performs the steps comprising comparing the indication of at least one deficiency in vision of a user and at least one of the ambient light intensity and the ambient light spectrum.

29. The product of claim 25, wherein the computer program product when executed by the processor performs the steps comprising determining at least one of a desired background color, foreground color, brightness, contrast, size, and font.